What is claimed is:

1. A producing method of an optical film, said optical film being produced by expanding a polymer film with a tentering device, said producing method comprising steps of:

unwinding a first polymer film from a first film roll to supply said first polymer film to said tentering device;

unwinding a second polymer film from a second film roll after the unwinding of said first polymer film is completed;

overlaying a trailing end portion of said first polymer film and a leading end portion of said second polymer film at a film connecting position;

thermally melting and adhering part or entirety of said overlaid trailing and leading end portions in line; and

unwinding said second polymer film from said second film roll after the thermal melt-adhesion to supply said second polymer film into said tentering device.

2. A producing method as claimed in claim 1, further comprising steps of:

forming a loop of said first polymer film in a reservoir disposed between said film connecting position and said tentering device;

stopping said trailing end portion of said first polymer film when said trailing end portion of said first polymer film reaches the film connecting position; and

stopping said leading end portion of said second polymer film for the thermal melt-adhesion when said leading end portion of said second polymer film overlies on said trailing end portion of said first polymer film.

3. A producing method as claimed in claim 2, further comprising cutting off an old trailing end portion to form said trailing end portion, and/or cutting off an old leading end portion to form said leading end portion, with a cutter disposed upstream from the film connecting position.

4. A producing method as claimed in claim 3, wherein a line width of a thermal melt-adhesion line is in a range of 1-10 mm.

5. A producing method as claimed in claim 4, wherein a distance from said thermal melt-adhesion line to an end point of said trailing end portion of said first polymer film or an end point of said leading end portion of said second polymer film is at most 10 mm.

6. A producing method as claimed in claim 5, wherein said distance is 0 mm.

7. A producing method as claimed in claim 6, wherein a length of said old trailing end portion which is cut off is nearly twice as large as that of a circumference of a roll core of said first film roll.

8. A producing method as claimed in claim 7, wherein a length of said old trailing end portion which is cut off is nearly equal to that of a circumference of said second film roll.

9. A producing method as claimed in claim 1, wherein said thermal melt-adhesion is performed with a heat seal or an impulse seal.

10. A producing method as claimed in claim 3, wherein said first and second polymer films are a PVA film.

11. A producing method as claimed in claim 10, wherein said tentering device expands said first and second polymer films in a direction inclined relative to a film transporting direction.

12. A producing method as claimed in claim 11, wherein said first and second polymer films are treated with a treatment liquid shortly before entrance into said tentering device.